

Assessment item 4 – Debugging

Bug Report

Bug 1: Incorrect calculation of fines.

When a book becomes overdue by one day, no fine is imposed.

```
Choice : r
Return Book Use Case UI
01/11/2020

Scan Book (<enter> completes): 2
Inspecting
Book: 2
  Title: celtics
  Author: rajon rondo
  CallNo: 123
  State: ON_LOAN
Loan: 9
  Borrower 2 : Ralph, Lauren
  Book 2 : celtics
  DueDate: 31/10/2020
  State: OVER_DUE

Overdue fine : $0.00
```

Bug 2: Incorrect fine amount levied.

When a fine is incurred, the amount of fine reported is half the amount intended.

```
Choice : r
Return Book Use Case UI
27/10/2020

Scan Book (<enter> completes): 1
Inspecting
Book: 1
  Title: t
  Author: a
  CallNo: c1
  State: ON_LOAN
Loan: 10
  Borrower 1 : t, j
  Book 1 : t
  DueDate: 25/10/2020
  State: OVER_DUE

Overdue fine : $1.00
Is book damaged? (Y/N): n
Return processing complete
```

Bug 3: Incorrect state of a loan

adjusting the date forward then backwards does not fix the state of a loan

```
Choice : 11

Loan: 2
  Borrower 1 : Doe, John
  Book 1 : Lakers
  DueDate: 25/10/2020
  State: OVER_DUE

Loan: 3
  Borrower 1 : Doe, John
  Book 2 : celtics
  DueDate: 25/10/2020
  State: OVER_DUE

24/10/2020
```

Bug 4: Incorrect patron status

Status of a patron changes to CAN_BORROW after paying an amount less than the specified fine.

```
Enter amount (<Enter> cancels) : 1
Patron: 1
  Name: Doe, John
  Email: johnDoe@mail.com
  Phone: 12345
  Fines Owed : $1.00
  State: CAN_BORROW

Pay Fine process complete
```

Bug 5: Negative fine amount

Adjusting the date forward and then backwards results to a negative fine amount for an overdue loan.

```
Choice : r
Return Book Use Case UI
20/10/2020

Scan Book (<enter> completes): 2
Inspecting
Book: 2
  Title: celtics
  Author: rajon rondo
  CallNo: 123
  State: ON_LOAN
Loan: 14
  Borrower 1 : Doe, John
  Book 2 : celtics
  DueDate: 22/10/2020
  State: OVER_DUE

Overdue fine : $-1.00
Is book damaged? (Y/N): |
```